Functional Design

CATEGORY

Outbound Interface

APPLICATION OVERVIEW

The Annual Budget Development System, ABDS, is the budgetary system for the Virginia Department of Transportation, VDOT. ABDS maintains a local copy of the current VDOT ChartFields internally. ABDS requests a refreshed copy of the current ChartField values on an ad hoc basis to keep their system synchronized with VDOT. Also agencies that transmit data into Cardinal will need to cross-reference their accounting strings with Cardinal values. During the annual budget planning and loading period these requests become more frequent and may be executed daily.
PeopleSoft does not have a delivered interface to extract current ChartField values. A requirement has been identified to create an outbound interface that will provide ABDS and Part 3 external interfacing agencies with the current Cardinal ChartField values, the valid ChartField combinations, the valid Cardinal Business Units and the Cardinal Department tree values. The interface will allow interfacing agencies to receive only the ChartFields required in their system. The interface will select the ChartFields they need to receive based on the checkbox selected and the SETID provided on the interface run control. The user will also have the option to either leave the ChartField value blank and receive all values or select a range of values. An option will also exist for users to select ChartFields based on a node from a tree. Users will be required to choose one of these options to determine what ChartField values will be extracted.

A new option was added to the run control page to specify as of date to either run the extract for current or future dated ChartField values. This extract can either run to extract ChartField values with most recent effective date which are less than or equal to current date or this extract can run for future dated ChartField values which will be less than As Of Date specified on the run control page and greater than current date.

The ChartField values along with effective date will be extracted from the following ChartField tables and written to separate files for each ChartField:

- PS_GL_ACCOUNT_TBL – Account
- PS_FUND_TBL – Fund
- PS_CHARTFIELD2_TBL – Program
- PS_DEPT_TBL – Department
- PS_CLASS_CF – FIPS
- PS_PROJ_ACTIVITY – Activity
- PS_PRODUCT_TBL – Task
- PS_CHARTFIELD1_TBL – Cost Center
- PS_OPER_UNIT_TBL – Asset
- PS_CHARTFIELD3_TBL – Agency Use 1
- PS_PROJECT – Project
- PS_BUD_REF_TBL – Agency Use 2
- PS_PROGRAM_TBL – Future Use

Valid ChartField combinations are used to allow transactions to be budget checked and processed through Cardinal, for VDOT only. Combinations will be selected from the PS_COMBO_DATA_TBL and be provided to interfacing systems in a separate file. Additional values that are required by the interfacing system will be selected by the interface. Valid Cardinal Business Units will be selected from the PS_BUS_UNIT_TBL_GL table if the checkbox on the run control is selected. The Cardinal tree values for

the Department ChartField will also be provided to the interfacing system if the associated checkbox is selected on the run control. The tree data will be selected from the PSTREENODE table.

During the year, the interface could extract data on a monthly basis for Part 3 and the frequency will increase to daily during the annual budget planning period. SETID, ChartField, description, effective status and effective dates will be provided in the extract. The combination file will contain SETID, all the Cardinal ChartField and the EFFTDT_TO and EFFDT_FROM that the combinations are valid. The Business Unit file will contain Business Unit and the Business Unit Description. The tree file will contain SETID, tree name, tree node number, tree node and the parent node number.

Supported Business Processes

System setup and ChartFields

Purpose/Use

This extract will be used by external interfacing systems to receive Cardinal ChartField values, ChartField combinations, valid Business Units, and Department tree values.

Processing Overview

An existing run control page and record will be utilized for the Cardinal interface. It will allow users to select the file recipient and specify the SETID for each ChartField. If the SETID for a ChartField is left blank, all SETID's will be included in the extract. Checkboxes will be used to select individual ChartField and a separate output file will be created for each ChartField selected. Agencies can further limit the data extracted to the output file by specifying a range of values for each ChartField or entering a tree value on the run control. An additional checkbox will provide agencies the option to select combination data to be generated in a separate file. Business unit data will also be provided in a separate output file if the checkbox is selected. The tree structure values for the Department ChartField will be extracted to a separate file. The interface will be executed during the nightly batch for the specified SETID's for the selected ChartFields. The following is a description of the major processing steps:

1. The run control will be setup with:
    - The selected ChartFields, as indicated by checkboxes
    - Combination data option, as indicated by a checkbox
    - SETID for each ChartField
    - The option to choose a ChartField range or the ChartField tree and tree node value
    - Checkbox for business unit
    - Checkbox for the Department tree values
    - The receiving system
2. The program will be executed during the nightly batch.
3. The staging tables will be cleared from the previous run of the interface.
4. The program will identify and extract the current ChartField values for the specified SETID based on the most current effective dated row that is not future dated.
5. The data will be written into individual staging tables, one for each ChartField.
6. The combination data will be identified by referencing the COMBO_DATA_TBL to determine the valid combinations.
7. The combination data will then be extracted and written to a staging table.
8. The Business Unit data will be written to a staging table.
9. The tree value for the Department ChartField will be written to a staging table.
10. This staging table data will then be written to the output files.
11. The files will be transferred to the interfacing system.

IMPACTED OBJECT INVENTORY AND DESCRIPTION

IMPACTED OBJECTS

Please refer to the technical design section

RELATED LEGACY OBJECTS

In CARS, 3 agencies utilize the CARS Descriptor Table Extracts Interface. This will be replaced by the COA Extract in Cardinal. The following interfaces receive agency transactions from CARS:

Parent Agency Name	Parent Agency Number
DEPARTMENT OF PLANNING AND BUDGET	122
AUDITOR OF PUBLIC ACCOUNTS	133
DEPT OF CORRECTIONS-CENTRAL ACTVITIES	799

For VDOT the following legacy objects were related:

- Load_Account_Data_From_FMSII
- Load_Cost_Center_From_FMSII
- Load_Fund_Code_From_FMSII
- Load_ORG_Data_From_FMSII
- Load_Program_Code_From_FMSII

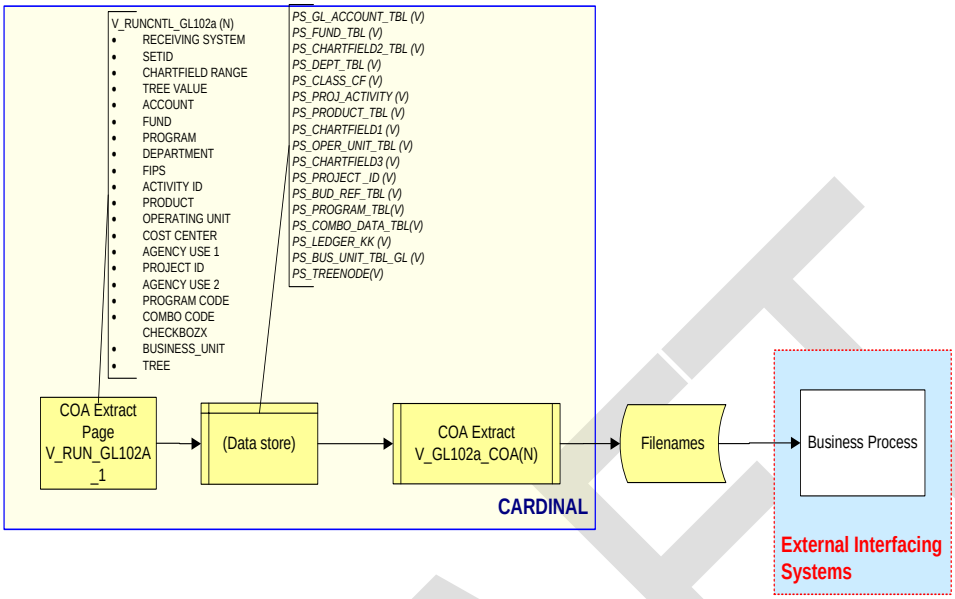
ASSUMPTIONS

This interface has the following assumptions:

- A separate file will be generated for each ChartField element
- A separate file will be generated for combination data
- A separate file will be generated for the current Cardinal business units
- A separate file will be generated for the department tree values
- Separate files will be received by each of the interfacing systems
- The interface frequency will vary for each system (An open item has been added to document that the frequency needs to be determined).
- The interface will need to be executed multiple times a night, once for each interfacing system
- ChartFields with a shared SETID will be extracted in all ChartField extracts if selected on the run control page
- ChartField values not selected on the run control page will not have a blank file generated
- The Org Hierarchy (Tree Structure) will be included in this extract (An open item has been added to confirm that ABDS will not need this)
- ChartField combinations will be built as part of the delivered combination explosion process
- Attribute (CF_ATTRIBUTE) description will be substring to a length of 100 from Long.

APPLICATION FLOW DIAGRAM

Interface Process Flow Diagram



FILE PROCESSING

The file layout will be provided during the technical design**.**

RTM CROSS-REFERENCE

This modification satisfies the following requirements:

- GL101 – The system shall provide the ability to perform outbound interface processing with performance budgeting to send valid chart of account values and combinations
- GL102 – The system shall provide the ability to perform outbound interface processing with VDOT's ABDS (Annual Budget Development System) budget system to send valid chart of account values and combinations (Part 2)
- GL428 – The system shall provide the ability to perform outbound interface processing with the Central Integrated Payroll/Personnel System (CIPPS) to provide chart of account valid values (Part 2)
- GL430 – The system shall provide the ability to perform outbound interface processing with FAACS (Fixed Asset Accounting & Control System) to provide chart of account valid values (Part 2)

CONVERSION IMPACT

This modification has the following conversion impacts:

- N/A

CONFIGURATION IMPACT

The following work units will need to be configured and loaded prior to the execution of the interface:

- CGL005 – Account
- CGL007 – Fund

- CGL012 – Program will be configured to the ChartField 2 ChartField.
- CGL006 – Department
- CGL020 – FIPS will be configured to the Class ChartField
- CGL010 – Project
- CPC015 – Activity ChartField
- CGL009 – Task will be configured to the Product ChartField
- CGL011 – Cost Center will be configured to the ChartField 1 ChartField.
- CGL008 – Asset will be configured to the Operating Unit ChartField
- CGL013 – Agency Use 1 will be configured to the ChartField 3 ChartField.
- CGL017 – Combination Edit Rules
- CGL0XX – Agency Use 2 will be configured to the Budget Reference ChartField
- CGL016 – Business Unit GL

CHANGE MANAGEMENT IMPACT

This modification has the following change management impacts:

- N/A

SECURITY / SENSITIVE DATA IMPACT

This modification has the following security / sensitive data impacts:

- N/A

TECHNICAL IMPACT

This modification has the following technical impacts:

- Due to volume of Combo Edits the performance of the interface could be impacted

RELATED WORK UNITS

- This modification is related to the following work unitsN/A

TESTING SCENARIOS

#	Description
1	Run the GL102a interface with all ChartFields selected.
2	Run the GL102a interface with only one ChartField specified.
3	Run the GL102a interface with the business unit checkbox selected.
4	Run the GL102a interface with the tree value checkbox selected.
5	Run the GL102a interface for a specified SETID, and validate that only ChartFields for that SETID are included in the extract files.
6	Run the GL102a interface for the combination data option only and validate that only the combination data file was generated.
7	Run the GL102a interface with a ChartField range provided
8	Run the GL102a interface with a tree value provided for the ChartField values

OPEN ISSUES

#	Issue	Owner	Status	Response
1	The exact frequency that the interface needs to be executed needs to be determined.	GL Team	Closed	5/18 – Confirmed with the GL team that the exact frequency will need to be determined with the business owners during the external MOU meeting. 8/7 – This was confirmed during MOU/ITD meeting with business users that this extract would run the COA extract once a day in batch schedule.
2	Org Hierarchy (Tree Structure) was included in the existing FMS extract. A determination needs to be made if this information is still required by ABDS and how it will be included in the extract.	GL Team	Closed	5/13 - MOU Meeting Organization Hierarchy will be required by ABDS in future from Cardinal Cardinal Project Team (Bilal) will need to work with functional team to determine on how this data can be extracted from Cardinal and If there are any impacts to GL102a - COA extract
3	The GL102a Interface is being developed as a generic Interface, If combination data will be needed in future this extract will be able to extract combination data for ABDS	GL Team	Closed	Confirmed with the GL team that this interface will include combination data.
4	COA and budget structures and values will need to communicated to ABDS once they are finalized in Cardinal.	Interface Team	Closed	07/23 – A meeting was scheduled to confirm new budget structure and cardinal will update the structure and share with team and will distribute the document. 5/11 – Confirmed with the GL team that the COA has not been signed off completely.
5	Confirmation is needed as to whether the interface will require budget combination data or ChartField combination edit data.	GL Team	Closed	7/26 – Budget combination data will be extracted. 5/18 – Confirmed with the GL team that the table used to store combination data in Cardinal is still being determined and will be determined during technical design.
6	The data volume for combo data may determine if it will be feasible to extract combination data from Cardinal. Tech team and GL team are working on defining the	GL/Tech Team	Closed	2/15 – Moved the issue to SharePoint Issue 401

	approach on how Data combination needs to be build and stored in Cardinal			

Note: The Open Issues section should be used by the technical designer to track open issues. This can also be used to track items that come up in peer review. Prior to going to inspection review all items should be addressed and grayed out.